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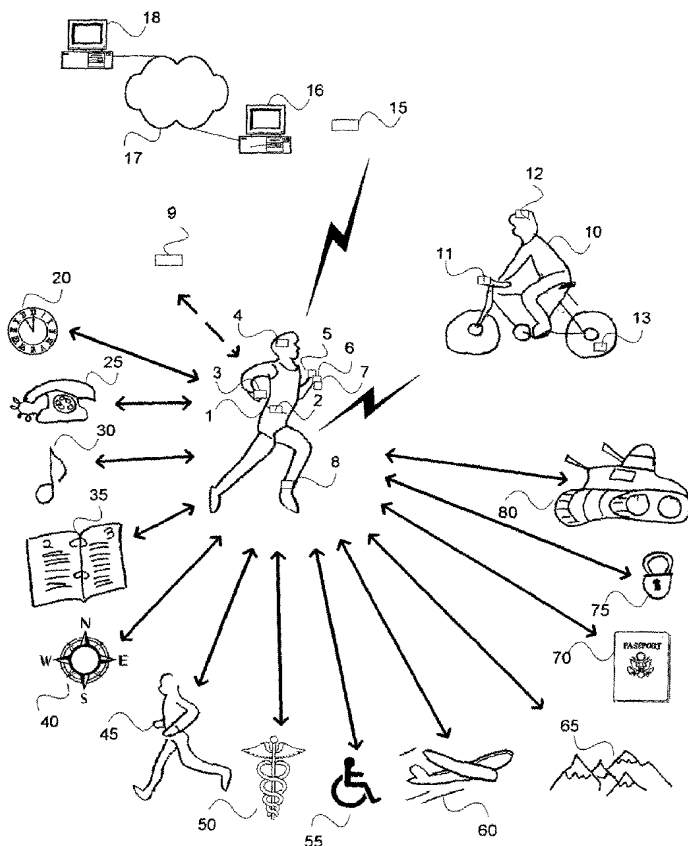
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- (72) Inventor: **ELLIS, Caron, S.**; 1300 Kingwood Place, Boulder, CO 80304 (US).
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- (74) Agent: **MARTIN, Rick**; Patent Law Offices of Rick Martin, PC, 416 Coffman Street, Longmont, CO 80501 (US).
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- (71) Applicant and  
(72) Inventor: **ELLIS, Michael, D.** [US/US]; 1300 Kingwood Place, Boulder, CO 80304 (US).
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,

[Continued on next page]

(54) Title: MODULAR PERSONAL NETWORK SYSTEMS AND METHODS



(57) Abstract: We have disclosed a modular personal network (MPN) that includes multiple devices that may be worn, carried, or used in close proximity to a user. The devices communicate wirelessly. Functions of the MPN may be modified by adding or removing components. The MPN may communicate with a personal computer. General purpose devices may include a control unit, a display, a user input, and an audio output. The MPN may provide a variety of functions, including time, communication, entertainment, organization, guidance, athletic, medical, travel, outdoors, identity, security and military. The wireless protocol is preferably based on the Bluetooth or IEEE 802.15 standards.

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GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

**(88) Date of publication of the international search report:**  
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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 02/04947

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L12/28 H04Q7/32 A61B5/00 A63B24/00 G06F9/44  
G06F3/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04Q A61B A63B G06F G02C G06K G06T G11B G07F G01C G01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 36900 A (FOURIE LOUISE) 29 June 2000 (2000-06-29) the whole document	1-5
X	WO 98 38820 A (ERICSSON TELEFON AB L M) 3 September 1998 (1998-09-03) abstract	1-5
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A	EP 1 018 832 A (SONY COMP ENTERTAINMENT INC) 12 July 2000 (2000-07-12) abstract	1-5
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

19 September 2002

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08.10.02

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Köppl, M

## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X	WO 01 00281 A (TRAKUS INC) 4 January 2001 (2001-01-04) page 3, line 2 -page 5, line 25 page 21, line 21 -page 22, line 17; figure 4A ---	8,11,12, 15
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X	US 6 041 023 A (LAKHANSINGH CYNTHIA) 21 March 2000 (2000-03-21) abstract ---	14
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02 04947

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 87 05229 A (SCIENT APPLIED RESEARCH SAR) 11 September 1987 (1987-09-11) the whole document ---	22,23
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A	BARBER T ET AL: "DESIGNING FOR WIRELESS LAN COMMUNICATIONS" IEEE CIRCUITS AND DEVICES MAGAZINE, IEEE INC. NEW YORK, US, vol. 12, no. 4, July 1996 (1996-07), pages 29-33, XP000831606 ISSN: 8755-3996 ---	
A	JONES K L ET AL: "A Protocol for Automatic Sensor Detection and Identification in a Wireless Biodevice Network" ELEVENTH IEEE SYMPOSIUM ON COMPUTER-BASED MEDICAL SYSTEMS, 12 June 1998 (1998-06-12), XP002133125 ---	
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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/04947

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-5

The special technical feature is a network of mobile phones where software can be downloaded from a central processor to the mobile phones.

2. Claim : 6

The special technical feature is that a programmed network identifier can only be modified by an authorized user.

3. Claim : 7

The special technical feature is the sending of a message from a component of a first modular personal network to a component of a second modular network.

4. Claims: 8-15

The special technical features are input and output means in a mobile information system.

5. Claims: 16-18

The special technical feature is a positioning monitoring means.

6. Claims: 19-30

The special technical feature is sensing parameters of the human body.

7. Claim : 31

The special technical feature is the comparison of stored images.

8. Claim : 32

The special technical feature is to communicate journal entries stored in a user device to a personal computer.

9. Claim : 33

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

The special technical feature is the sending of a turn-off and turn-on messages to other devices in a wireless network.



**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International Application No

PCT/US 02 04947

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